

Developing Your Self-Learning Ability

In order to develop your self-learning ability, it is important that you strive to solve each problem independently before seeking assistance. When you do have difficulty solving problems in Levels J and higher, please follow these guidelines:

1. Carefully study the example, and read any additional notes on the worksheet first.
2. Determine exactly where you are stuck; for example, ask yourself, "Up to which step do I understand?"
3. It may be helpful to read the example aloud. This will help you to look at the steps even more closely, thereby allowing you to observe the intermediate steps more carefully.
4. It may also be helpful to copy down the example provided, do the calculations and check them, trying to fully understand the intermediate steps.
5. If you still do not understand the problem, ask your **Instructor or an assistant** for help.
6. If you have forgotten a definition, formula, or **method of solving certain problems**, then use the Formula Book, as it has the **definitions and formulas, along with page references**, like those found in the **worksheets**. If you have **forgotten** the method of solving certain problems, then **review the worksheets that you have done before**.
7. If a Solution Book is available for reference at your Center, and if you have questions after having tried to solve the **problem independently**, look at the answer in the **Solution Book**.
8. Once you understand the solution, close the **Solution Book** and re-attempt the **problem**.
9. When checking your answers using the **Solution Book**, do not simply look at the answer, but **review the intermediate steps as well**. Generally, the solution includes **only the minimum amount of explanation necessary** for it to be a solution, so you **should compare it with your own work**. If your steps do not match up, you should **start to rework the problem from the point where your work does not match**.
10. If you still cannot work through the problem, some further assistance from your Instructor may be required.

Remember, do not just copy down the answer, but review the steps one by one, until you understand each step in the solution process. When you fully understand the solution process, you will be able to come up with the next answer on your own!

Tips for Taking a Kumon Math Achievement Test

Before the Test:

1. Be confident!!!!—Your Instructor wouldn't give you an Achievement Test unless he/she knows you *will* do well on it—don't be nervous; you'll do fine!
2. Get a good night's sleep the night before the test.
3. Try to eat a healthy snack to energize yourself before arriving at the Center. Taking a test on an empty stomach is never a good idea.
4. Make sure you have everything you need: scratch paper, pencils, and erasers.
5. Understand how the test is graded.
6. It is very important to write down your starting and finishing time on an Achievement Test—without it, the test can't be scored/counted.
7. Before you begin, you might want to get an idea of the **number of questions** on the test and the standard completion time. This information is **given** on the front cover of the test booklet.
8. It may also be a good idea to glance quickly at the “Score Table” chart on the front cover of the test—this tells you the **different topics** on the test.
9. Recall/Remember any formulas, equations, or rules that are important to solving problems in the level.

During the Test:

10. Read all the directions for **each section** before you begin solving problems.
11. Be neat, and erase any mistakes completely.
12. Solve problems in order and quickly, but skip questions that you get stuck on.
13. If you are stuck on a problem:
 - Reread the question to make sure you understand it.
 - Circle it and move on—you can always return to the problem later.
 - While solving another problem, you may get an idea as to how to attack that difficult problem.
14. If you know that your answer to a problem is wrong, first, try to find your mistake and correct it. If you are unable to locate your mistake, start over on a clean piece of scratch paper.

General Tips for Solving Word Problems

1. Read the problem carefully, and study any given pictures or graphs.
2. Determine what the problem is asking for.
3. Identify what is *given* and what is *unknown*.
4. Identify and underline *key words*. (see **Key Words/Operations**)
5. Identify the *units* in which your final answer should be expressed.
6. Form a strategy to solve the problem. Think about what **specific** operations, formulas, equations, or inequalities may be used. Try to come up with the fastest and most efficient plan.
7. If possible, draw a diagram, and label it with all of the **appropriate** quantities that are given in the problem. (If **applicable**, also label **any parts** that are unknown, in terms of a variable.)
8. You may have to solve for **additional information** in a problem before arriving at the final answer. (These are known as multi-step problems.)
9. Carry through with your plan, **making sure** to perform calculations carefully.
10. **Check** whether your answer is reasonable using approximation.
11. Check all of your computations.
12. Make sure your final answer is labeled with the appropriate units. (Conversions may be necessary.)